SORENSEN

QRC40-8A

Parts List/schem

SMEAD®

No. 153L

UPC 10330

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REPLACEMENT PARTS LIST
MODEL QRC 40-8 A
SERIAL NO. 600 TO _____

LIST NO. A14-5881
SHEET 1 OF 4

SCHEMATIC SYMBOL	RECOMM. SPARES	DESCRIPTION	FUNCTION	SORENSEN PART NO.	MANUFACTURER
C 1		Cap., .68 mfd, 200 v		24-2409-18	Aerovox V146XR
C 2		Cap., 7kmfd, 100 v		24-2526-5	Sprague, 36D
C 4		Cap., .022 mfd. 200 v		24-2409-9	Aerovox type V146XR
C 6		Cap., .22 mfd, 200 v		24-2409-15	Aerovox type V146XR
C 7		Cap., .68 mfd, 200 v		24-2409-18	Aerovox type V146XR
C 8		Cap., 4 mfd, 25 v		24-2279-4	Sprague TE 1201.2
C 9		Cap., 1.9K mfd, 6 v		24-2440-3	Sprague 34D198G6HJ4
C12		Cap., .01 mfd, 200 v		24-2409-7	Aerovox type V146XR
C13		Cap., 5K mfd, 50 v		24-2445-2	Sprague 32D
C14		Cap., .47 mfd, 200 v		24-2409-17	Aerovox type V146XR
C15		Cap., 1800 mfd, 15 v		24-2441-1	Sprague 34D188H015JS4
C16		Cap., .1 mfd, 200 v		24-2409-13	Aerovox type V146XR
C17		Cap., 8K mfd, 50 v		24-2299-9	Sprague 36D
C 19		Cap., 15 mfd, 15 v		24-2278-9	Sprague TE 1156
C 20		Cap., 1.0 mfd, 200 v		24-2409-19	Aerovox type V146XR
C 21		Cap., 250 mfd, 25 v		24-2286-7	Sprague type 45D
C 22		Cap., .001 mfd, 200 v		24-2409-1	Aerovox type V146XR
C 23		Cap., 100 mfd, 15 v		24-2278-15	Sprague TE 1162
C 24		Cap., .033 mfd, 200 v		24-2409-10	Aerovox type V146XR
C 25		Cap., .068 mfd, 200 v		24-2409-12	Aerovox type V146XR
C 26		Cap., .033 mfd, 200 v		24-2409-10	Aerovox type V146XR
(8) C 28		Cap., .01 mfd, 200 v		24-2409-7	Aerovox type V146XR
(9) C 29,35		Cap., .033 mfd, 200 v		24-2409-10	Aerovox type V146XR
C 30		Cap., .0033 mfd, 200 v		24-2409-4	Aerovox type V146XR
(10) C 31		Cap., .001 mfd, 200 v		24-2409-1	Aerovox type V146XR
C 32		Cap., .001 mfd, 200 v		24-2409-1	Aerovox type V146XR
(7) C33		Cap., .068 mfd, 400 v		24-2411-12	Aerovox type V146XR
(7) C34		Cap., .068 mfd, 400V		24-2411-12	Aerovox Type V146XR
(11) C36		CAP, 330PF, 500V		24-066	CENTRALAB ID331
(14) C37		CAPACITOR, .01MFD, 200V		24-2409-7	AEROVOX TYPE V146XR
CR 1		Rectifier		26-173-3	Westinghouse no. 368C
CR 2		Rectifier		26-173-3	Westinghouse no. 368C
CR 3		Rectifier		26-173-3	Westinghouse no. 368C
CR 4		Rectifier		26-173-3	Westinghouse no. 368C
CR 8		Rectifier		26-158-1	Solitron CER 68
CR 9		Rectifier		26-158-1	Solitron CER 68
(15)					
(15)					
(15)					
CR 14		Rectifier		26-173-2	Westinghouse no. 368B
CR 16		Rectifier		26-158-1	Solitron CER 68
CR 17		Rectifier		26-158-1	Solitron CER 68
CR 18		Rectifier		26-158-1	Solitron CER 68
CR 19		Rectifier, 1N750A		26-211	Motorola, 1N750A
(21) CR 20		Rectifier, 1N751		26-248	Motorola 1N751
CR 21		Rectifier		26-158-1	Solitron CER 68
CR 23		Rectifier, 1N936		26-238	Motorola 1N936
CR24,a,b		Rectifier		26-1017	Raytheon RD 9119
CR25,a,b		Rectifier		26-1017	Raytheon RD 9119
CR 28		Rectifier		26-158-1	Solitron CER 68
CR 29		Rectifier		26-241	U.S.Semicor LMZX15
(6) CR31		RECTIFIER		26-1052	G.E. TYPE C10Y21
(12) CR32		ZENER, 1N758A		26-247	MOTOROLA, 1N758A
(13) CR33		ZENER, 1N746		26-223	MOTOROLA, 1N746
DS 1		Pilot lamp, red	Power ON indicator	43-308	Industrial Group IV-B
XDS2		Pilot lamp holder (green)		43-340	Dialight no.162-8430-972
XDS3		Pilot lamp holder (green)		43-340	Dialight no.162-8430-972
DS 2,3		Lamp		42-339	G.E., 345
(20) CR34		ZENER, 1N752		26-222	MOTOROLA, 1N752
(15) C38		CAP., .0047MFD, 200V		24-2409-5	AEROVOX TYPE V146XR
(14) C39		CAP, 15MFD, 50V		24-2280-9	SPRAGUE TE 1304.2
(16) C40		CAP, 100MFD, 6VDC		24-2013	SEMCOR TSD4-6-107
(18) C41		CAP, .1MFD, 200V		24-2409-13	AEROVOX TYPE V146XR

REPLACEMENT PARTS LIST
MODEL QRC 40-8A
SERIAL NO. 600 TO _____

LIST NO. A14-5881 F
SHEET 2 OF 4

SCHEMATIC SYMBOL	RECOMM. SPARES	DESCRIPTION	FUNCTION	SORENSEN PART NO.	MANUFACTURER
F 1		Fuse, 8 Amp		42-428	Littlefuse 312008
XF1		Fuse holder		42-459	Littlefuse 342012
L 1		Choke		127-1708	Sorensen-A Unit of Raytheon
M1		Ammeter	Output ammeter	94-433-4	Sorensen-A Unit of Raytheon
M 2		Voltmeter	Output voltmeter	94-549-4	Sorensen-A Unit of Raytheon
Q 1		Transistor, 2N2646		18-100	G.E., 2N2646
Q 2		Transistor 2N3643		18-148	Fairchild 2N3643
Q 3		Transistor, 2N3638		18-143	Fairchild 2N3638
Q 4		Transistor		18-145	Raytheon RT 9343
Q 5		Transistor		18-144	Fairchild FSC 3641
Q 6		Transistor		18-144	Fairchild FSC 3641
Q 7		Transistor, 2N3638		18-143	Fairchild 2N3638
Q 8		Transistor		18-144	Fairchild FSC 3641
Q 9 a,b		Transistor		18-137	Delco DTG 2400
Q 10		Transistor		18-149-3	SORENSEN-UNIT OF RAYTHEON
Q 11		Transistor		18-137	Delco DTG 2400
Q 13,a,b		Transistor		18-024	Sorensen-A Unit of Raytheon
Q 14		Transistor, 2N669		18-090	Bendix 2N669
Q 15		Transistor		18-146	Raytheon RT 9338
Q 16		Transistor, 2N3638		18-143	Fairchild 2N3638
Q 17		Transistor, 2N3638		18-143	Fairchild 2N3638
Q 18		Transistor		18-144	Fairchild FSC 3641
Q 19		Transistor		18-144	Fairchild FSC 3641
Q 20		Transistor, 2N3638		18-143	Fairchild 2N3638
Q 21		Transistor		18-146	Raytheon RT 9338
Q 22		Transistor		18-144	Fairchild FSC 3641
Q 23		Transistor		18-144	Fairchild FSC 3641
Q 24		Transistor		18-144	Fairchild FSC 3641
Q 25		Transistor		18-138	Amelco Semiconductor SA2206
Q 27		Transistor		18-145	Raytheon RT 9343
Q 28		Transistor		18-145	Raytheon RT 9343
Q 29		Transistor 2N3638		18-143	Fairchild 2N3638
Q 30		Transistor 2N3638		18-143	Fairchild 2N3638
Q 31		Transistor 2N3638		18-143	Fairchild 2N3638
Q 32		Transistor 2N3643		18-148	Fairchild 2N3643
Q 33		Transistor 2N3643		18-148	Fairchild 2N3643
Q 34		Transistor 2N3638		18-143	Fairchild 2N3638
Q 35		Transistor 2N3638		18-143	Fairchild 2N3638
Q 36		Transistor, 2N3638		18-143	Fairchild 2N3638
Q 37		Transistor		18-144	Fairchild FSC 3641
Q 38		TRANSISTOR, 2N3638		18-143	FAIRCHILD 2N3638
R 2		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 3		Resistor, 15K _, 1/2 w		27-179	Allen Bradley EB 1531
R 4		Resistor, 5K Ω, 2 w, ±20%		29-426	CTS series 110
R 5		Resistor, 10K Ω, 1/2 w		27-133	Allen Bradley EB 1031
R 6		Resistor, 20K Ω, 1/2 w		27-134	Allen Bradley EB 2035
R 7		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 8		Resistor, 470 Ω, 1/2 w		27-166	Allen Bradley EB 4711
R 9		Resistor, 820 Ω, 1/2 w		27-182	Allen Bradley EB 8211

REPLACEMENT PARTS LIST
MODEL QRC 40-8 A
SERIAL NO. 600 TO _____

LIST NO. A14-5881 F
SHEET 3 OF 4

SCHEMATIC SYMBOL	RECOMM. SPARES	DESCRIPTION	FUNCTION	SORENSEN PART NO.	MANUFACTURER
R 10		Resistor, 2.2K Ω, 1/2 w		27-152	Allen Bradley EB 2221
R 11		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 12		Resistor, 4.7 K Ω, 1/2 w		27-107	Allen Bradley EB 4721
R 13		Resistor, 47Ω, 1/2 w		27-181	Allen Bradley EB 4701
R 14		Resistor, 47 Ω, 1/2 w		27-181	Allen Bradley EB 4701
R 15		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 16		Resistor, 1K Ω, 1/2 w		27-103	Allen BradleyEB 1021
R 17		Resistor, 3.3 K Ω,1/2 w		27-140	Allen Bradley EB 3321
R 18		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 19		Resistor, 680 Ω, 1/2 w		27-156	Allen Bradley EB 6811
R 20		Resistor, 4.7K Ω, 1/2 w		27-107	Allen Bradley EB 4721
R 21		Resistor, 680 Ω, 1/2 w		27-156	Allen Bradley EB 6811
R 22		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 23		Resistor, 3.3K Ω, 1/2 w		27-140	Allen BradleyEB 3321
R 24		Resistor, 1KΩ, 1/2 w		27-103	Allen Bradley EB 1021
R 25		Resistor, 820Ω, 1/2 w		27-182	Allen Bradley EB 8211
R 28 a,b		Resistor, .15Ω, 7 w		27-470-5	Ward Leonard type 7X
R 29		Resistor, 40 Ω, 5 w		27-412	Ward Leonard 5F40
R 30		Resistor, 68 Ω, 1 w		27-281	Allen Bradley GB 6801
(17) R 31		Resistor, 1.8K, 1/2 w		27-176	Allen Bradley EB 1821
R 33		Resistor, .04 Ω		190-3491	Sorensen-A Unit of Raytheon
R 36		Resistor, 60 Ω, 50 w		27-1058	Ward Leonard 50F60
R 37		Resistor, 0.12 Ω, 12.5 w		27-649	Ward Leonard type 12.5X
R 39 a,b		Resistor, 0.24 Ω, 7 w		27-650	Ward Leonard type 7X
R 40		Resistor, 15 Ω, 10 w		27-509	Ward Leonard 10F15
R 41		Resistor, 47 Ω, 2 w		27-357	Allen Bradley HB 4701
R 42		Resistor, 150 Ω, 1 w		27-286	Allen Bradley GB 1511
R 44		Resistor, 1KΩ, 10 w		27-547	Ward Leonard 10F1000
R 45		Resistor, 220 Ω, 1/2 w		27-101	Allen Bradley EB 2211
R 46		Resistor, 3.3K Ω, 1/2 w		27-140	Allen Bradley EB 3321
R 47		Resistor, 470 Ω, 1/2 w		27-166	Allen Bradley EB 4711
R 48		Resistor, 1.2 K Ω, 1/2 w		27-1110	Allen Bradley EB 1221
R 49		Resistor, 1.2 K Ω, 1/2 w		27-1110	Allen Bradley EB 1221
R 50		Pot., 50 Ω, 2 w		29-467	IRC, series 110
R 51		Resistor, 2.2K Ω, 1/2 w		27-152	Allen Bradley EB 2221
R 52		Resistor, 0.032 Ω		190-3490	Sorensen-A Unit of Raytheon
R 53		Pot., 200 Ω, 10 Ω, 2 w		29-469	Clarostat series 43
R 54		Pot., 2 KΩ, 2 w		29-358	Clarostat series 43
(21) R 55		Resistor, 2.150KΩ, 1/2 w		28-1249	IRC, CEC-TO
R 56		Resistor, 330 Ω, 1/2 w		27-102	Allen Bradley EB 3311
R 57		Pot., 5 KΩ, 2 w		29-426	CTS, series 110
R 58		Resistor, 2.2K Ω, 1/2 w		27-152	Allen Bradley EB 2221
R 59		Pot., 4K Ω, 40 Ω, 2 w		29-404	Clarostat series 43
R 60		Resistor, 1.2 K Ω, 1/2 w		28-1190	IRC, CEC-T-2
R 61		Resistor, 180 Ω, 1/2 w		27-190	Allen Bradley EB 1811
R 63		Resistor, 180 Ω, 1 w		28-728	Allen Bradley GB 1811
R 64		Resistor, 560 Ω, 1/2 w		27-1103	Allen Bradley EB 5611
R 65		Resistor, 390 Ω, 1/2 w		27-1109	Allen Bradley EB 3911
R 66		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 67		Resistor, 1K Ω. 1/2 w		27-103	Allen Bradley EB 1021
R 68		Resistor, 2.2K Ω, 1/2 w		27-152	Allen Bradley EB 2221
R 69		Pot., 2 K Ω, 2 w		29-358	Clarostat 43
R 70		Resistor, 6.8 KΩ, 1/2 w		27-185	Allen Bradley EB 6821
R 71		Resistor, 4.7K Ω, 1/2 w		27-107	Allen Bradley 4721
R 72		Resistor, 200 Ω, 1/2 w		28-1052-56	IRC type DCC
R 73		Resistor, 1000 Ω, 1/2 w		28-1164	IRC type CEC
R 74		Resistor, 57.6 Ω, 1/2 w		28-1197	IRC type CEC-TO
(25)					
R 76		Resistor, 1K Ω, 1/2 w		27-103	Allen Bradley EB 1021
R 77		Resistor, 270 Ω, 1/2 w		27-191	Allen Bradley EB 2711
R 78		Resistor, 680 Ω, 1/2 w		27-156	Allen Bradley EB 6811

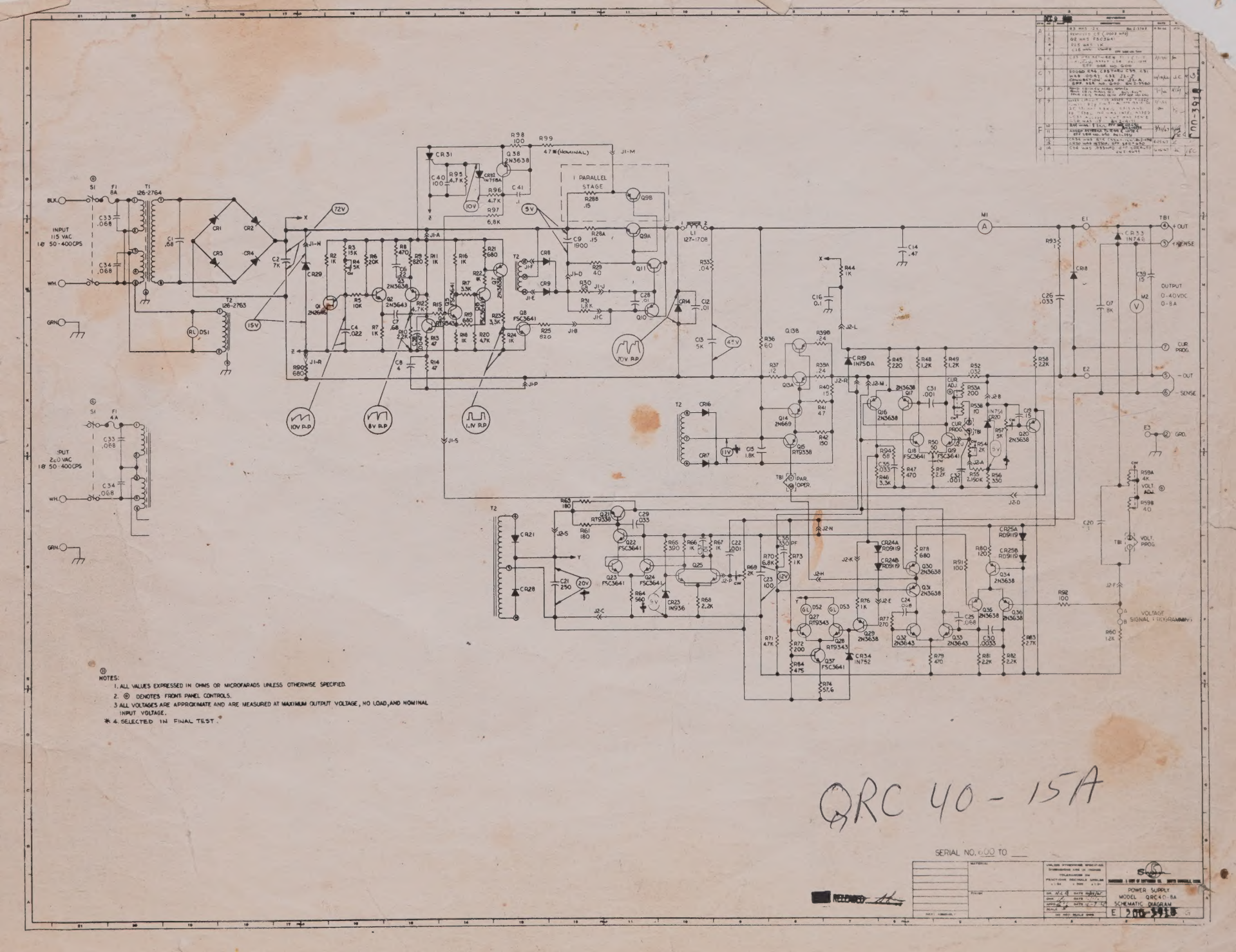
REPLACEMENT PARTS LIST
MODEL QRC 40-8A
SERIAL NO. 600 TO _____

LIST NO. A14-5881 F
SHEET 4 OF 4.

SCHEMATIC SYMBOL	RECOMM. SPARES	DESCRIPTION	FUNCTION	SORENSEN PART NO.	MANUFACTURER
R 79		Resistor, 470 Ω, 1/2 w		27-166	Allen Bradley EB 4711
R 80		Resistor, 120 Ω, 1/2 w		27-110/	Allen Bradley EB 1211
R 81		Resistor, 2.2K Ω, 1/2 w		27-152	Allen Bradley EB 2221
R 82		Resistor, 2.2K Ω, 1/2 w		27-152	Allen Bradley EB 2221
R 83		Resistor, 2.7K Ω, 1/2 w		27-174	Allen Bradley EB 2721
R 84		Resistor, 475 Ω, 1/2 w		28-1146	IRC type CEC-TO
R 90		Resistor, 680 Ω, 12.5 w		27-590-93	Ward Leonard 12.5 X
R 91		Resistor, 100 Ω, 1/2 w		27-173	Allen Bradley EB 1011
R 92		Resistor, 100 Ω, 1/2 w		27-173	Allen Bradley EB 1011
R 93		Resistor, 1Ω, 1/2 w		27-1157	Allen Bradley EB 10G1
(A) R94		RESISTOR, 68Ω, 1/2W		27-160	ALLEN BRADLEY EB 6801
(B) R95		RESISTOR, 4.7KΩ, 1/2W		27-107	ALLEN BRADLEY EB 4721
(C) R96		RESISTOR, 4.7KΩ, 1/2W		27-107	ALLEN BRADLEY EB 4721
(D) R97		RESISTOR, 6.8KΩ, 1/2W		27-185	ALLEN BRADLEY EB 6821
(E) R98		RESISTOR, 100Ω, 1/2W		27-173	ALLEN BRADLEY EB 1011
(F) R99		RESISTOR, 47Ω, 1/2W		27-181	ALLEN BRADLEY EB 4701
S 1		Switch	ON-OFF switch	45-121	Cutler Hammer 7565K6
T 1		Transformer, Rect. Input		126-2764	Sorensen-A Unit of Raytheon
T 2		Transformer, control		126-2857	Sorensen-A Unit of Raytheon

-REVISIONS- EFF SER NO. 600

B	7. C33 WAS: .15MFD S/N 24-2411-14. ADDED C34 ENZ-3899	8/18/66	
C	8- ADDED R94, P/N 27-160 (68Ω, 1/2W) ENZ-3980	10/12/66	NCQ
	9- " C35, " 24-2409-10 (.033MFD, 200V) (EFF SER NO. 600)		
	10- C31 WAS: 24-2409-5 (.0047MFD, 200V)		
	11- ADDED C36, P/N 24-0666 (330PF, 500V)		
	12- " C37, " 24-2409-7 (.01MFD, 200V)		
	13- " C38, " 24-2409-5 (.0047MFD, 200V)		
	14- " C39, " 24-2280-9 (15MFD, 50V)		
D	15- REMD CR11 & 6, CR12 & CR13, (P/N 26-1017) EFF SER NO. 600 ENZ-4027	11/10/66	NCQ "
E	16- C28 WAS: .15MFD, P/N 24-2409-14 ENZ-4171	12/12/66	NCQ JEC
	17- R31 WAS: 3.3KΩ, P/N 27-140 EFF SER NO 600		
	18- ADDED C40, 41, CR31, 32, 33, 938, R95, 96, 97, 98 & 99		
F	19 R55 WAS: 28-1189, 3.3KΩ ENZ-4554 EFF SER NO. 650	4/5/67	NCQ JEC
	20 DELETED R75 (33KΩ, 1/2W) 27-163, ADDED CR34 ENZ-4598		
	21 CR20 WAS 26-211 (1N750A)		



NOTES:

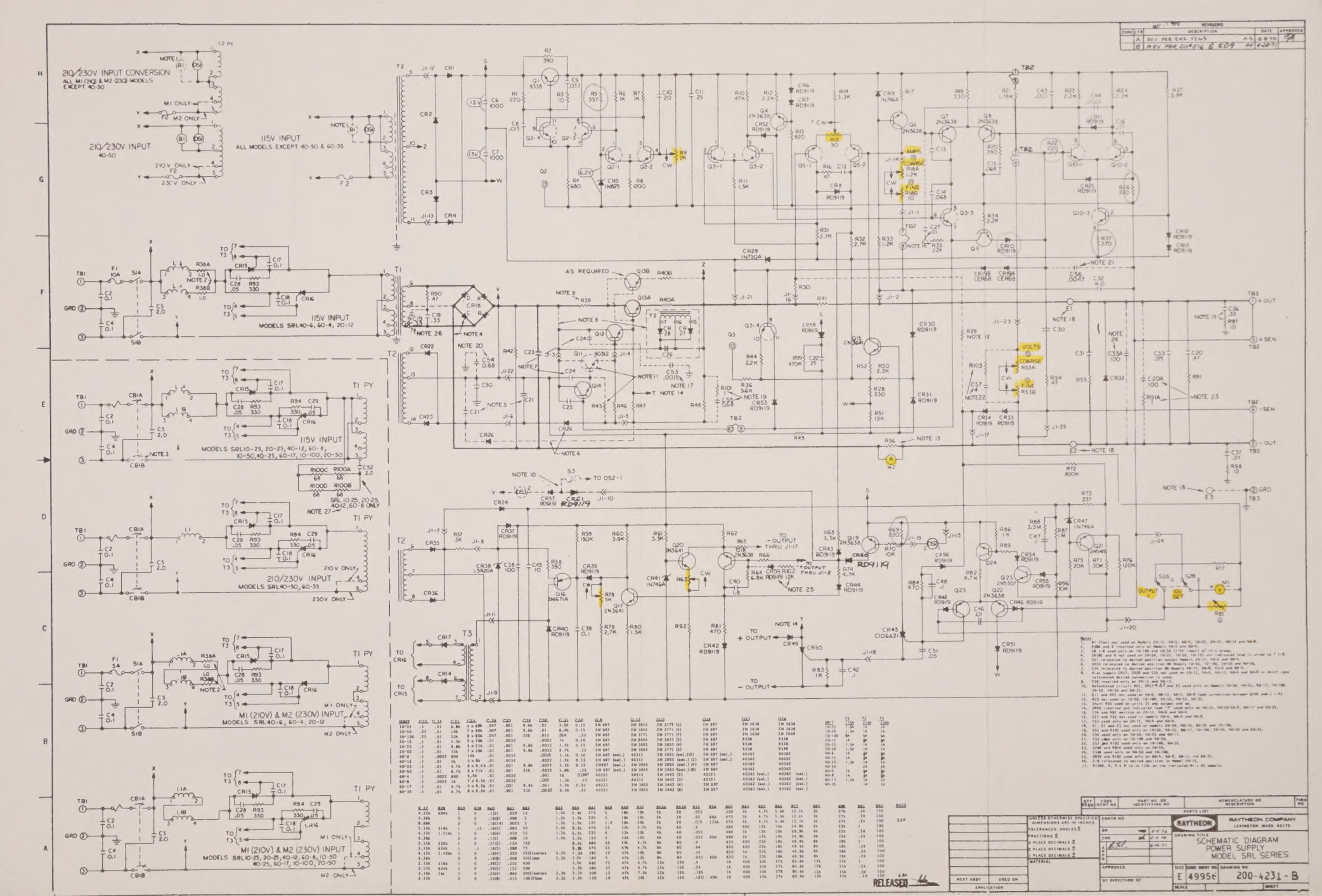
1. ALL VALUES EXPRESSED IN OHMS OR MICROFARADS UNLESS OTHERWISE SPECIFIED.
2. ⊛ DENOTES FRONT PANEL CONTROLS.
3. ALL VOLTAGES ARE APPROXIMATE AND ARE MEASURED AT MAXIMUM OUTPUT VOLTAGE, NO LOAD, AND NOMINAL INPUT VOLTAGE.
4. * SELECTED IN FINAL TEST.

QRC 40 - 15A

SERIAL NO. 600 TO ___

POWER SUPPLY
MODEL QRC40-8A
SCHEMATIC DIAGRAM

E 200-3918


210/230V INPUT CONVERSION
ALL M1 (2KJ) & M2 (2SJ) MODELS EXCEPT 40-50
M1 ONLY
M2 ONLY
210/230V INPUT
40-50
210V ONLY
230V ONLY
115V INPUT
ALL MODELS EXCEPT 40-50 & 60-35
115V INPUT
MODELS SRL40-6, 60-4, 20-12
115V INPUT
MODELS SRL10-25, 20-25, 40-12, 60-8, 10-50, 40-25, 60-17, 10-100, 20-50
SRL 10-25, 20-25, 40-12, 60-8 ONLY
210/230V INPUT
MODELS SRL40-50, 60-35
M1 (210V) & M2 (230V) INPUT
MODELS SRL40-6, 60-4, 20-12
M1 (210V) & M2 (230V) INPUT
MODELS: SRL10-25, 20-25, 40-12, 60-8, 10-50 40-25, 60-17, 10-100, 20-50
AS REQUIRED
VOLTS COARSE R53A
VOLTS FINE R53B
AMPS COARSE R18A
AMPS FINE R18B
+ OUT
+ SEN
- SEN
- OUT
RELEASED
RAYTHEON COMPANY
LEXINGTON, MASS. 02173
SCHEMATIC DIAGRAM
POWER SUPPLY
MODEL SRL SERIES
200-4231-B

MP MASTER
MA25543